

Impact of Formal Education as a Catalyst for Socioeconomic and Cultural Transformation in Underdeveloped Communities of Sokoto State
(A Case study of Defunct Silame Local Government Area)

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Abstract

The study investigated the role of formal education as a catalyst for socioeconomic and cultural transformation in underdeveloped communities of Sokoto State, using the defunct Silame Local Government Area, now comprising Silame, Binji, Tangaza, and Gudu LGAs, as a case study. A mixed-methods descriptive survey design was employed, integrating quantitative data from education records and household surveys with qualitative insights from key informant interviews. The sample comprised 380 respondents selected via a multistage sampling technique. Data analysis utilized descriptive statistics, Chi-square, at a 0.05 significance level. Findings reveal significant educational inequities across the LGAs. Tangaza outperformed others with a 49% girl-child enrolment rate, 74% qualified teachers, and 61% functional school sanitation coverage, while Gudu trailed with 28%, 53%, and 22% respectively. Chi-square results confirmed a significant relationship between tertiary education attainment and socioeconomic impact ($\chi^2 = 22.46, p = 0.001$), with Tangaza recording higher participation in health (72%) and agricultural programmes (68%). Education was shown to positively transform socio-cultural practices: early marriage rates declined from 42% to 29% in Tangaza and exclusive Qur'anic enrolment reduced by 26%. Key obstacles include insecurity, weak infrastructure, political interference, and cultural resistance. Community perceptions critically influenced enrolment and development; while Binji and Gudu perceived education as culturally subversive, Tangaza and Silame demonstrated increasing acceptance linked to economic and social benefits. The study concludes that despite modest attainment, education remains pivotal in driving incremental social modernization and economic diversification in rural Sokoto State. The study has demonstrated, with context-specific evidence, that formal education in underdeveloped Sokoto State communities significantly influences socioeconomic and cultural change, though unevenly distributed. It has confirmed the multidimensional obstacles hampering educational delivery and highlighted perception management as a key strategy for improving educational outcomes. It recommends integrated security-education initiatives, girl-child scholarships, and culturally sensitive advocacy programmes to address persisting educational and developmental inequalities.

Keywords: Formal education, socioeconomic transformation, educational equity, rural development, cultural practices

Introduction

Education is widely recognized as a fundamental driver of socioeconomic development and cultural transformation. Across the globe, educational systems have played a crucial role in equipping individuals with the knowledge, skills, and values necessary to contribute to their communities and society. Education access is a fundamental human right and a crucial element for sustainable development. This principle emphasizes equal opportunities for individuals, irrespective of gender, socioeconomic status, ethnicity, geographic location, or disability, to acquire knowledge and skills necessary for personal development and societal participation (UNESCO, 2020). International agreements like the Universal Declaration of Human Rights (1948), the Convention on the Rights of the Child (1989), and the United Nations Sustainable Development Goals (SDGs), especially Goal 4 (Quality Education), prioritise achieving inclusive and equitable quality education by 2030 (UNESCO S. , 2022).

In the Nigeria, formal education refers to the structured and systematic form of learning in schools, colleges, and universities, following a standardised curriculum established by educational authorities like the Nigerian Ministry of Education. It involves a clear hierarchy of educational levels, starting from primary education, progressing to secondary education, and culminating in tertiary education, which includes universities, polytechnics, and colleges of education (FME, 2020). Formal education in Nigeria is characterized by a set schedule, certified teachers, regular assessments, and the awarding of recognized qualifications such as the First School Leaving Certificate (FSLC), Senior Secondary School Certificate (SSCE), and various degrees and diplomas. It is designed to provide students with foundational knowledge, skills, and qualifications necessary for professional careers and informed citizenship (Uche & Ehiri, 2016).

Ensuring access to education for all involves addressing various barriers and challenges that hinder individuals from enrolling and participating in educational opportunities. Quality and relevance of education are critical factors as disparities in these areas can impact students' learning outcomes. Challenges such as social inclusion, economic status religious or traditional beliefs, inadequate infrastructure, poorly trained teachers, out dated teaching methods, and lack of learning materials can diminish the effectiveness of education. Therefore, investments in education infrastructure, qualified teachers, learning materials, and technology are essential for creating conducive learning environments (Adamu, Samaila, Murtala, & Ibrahim, 2023).

In states characterised by underdevelopment and ravage insecurity, education is not just a tool for personal advancement but also a critical mechanism for addressing broader social and economic challenges. Sokoto State, located in the northwestern region of Nigeria, is home to a diverse population with a rich cultural heritage. However, it is also one of the regions with significant socioeconomic challenges, including high levels of poverty, limited access to quality education, underdeveloped infrastructure, insecurity, kidnappings, and banditry activities (National Bureau of Statistics [NBS], 2020). These challenges have contributed to the persistence of underdevelopment in many communities within the state, resulting in limited opportunities for social mobility and economic growth (Azi, 2020).

Among these communities are those in defunct Silame Local Government Area. The defunct Silame presently comprises the Silame, Binji, Tangaza, and Gudu Local Government Areas in Sokoto State, Nigeria, is situated in the northwestern region of the country, west of the Sokoto State capital. According to the 2022 population estimate, the area is inhabited by approximately 723,300 people and occupies a land

area of about 7,127.2 square kilometres (National Population Commission [NPC], 2022). The predominant ethnic groups in the region are the Hausa and Fulani, with a minor presence of other groups in Binji. Historically, these communities have coexisted peacefully, with livelihoods largely centered on farming, herding, and fishing. The Hausa are particularly renowned for their traditional wrestling (kokawa), while the Fulani are recognized for their cultural festivals such as Shadi and other pastoral traditions (Usman, 2019).

Islam is the dominant religion in the area, deeply influencing the people's educational systems, customs, and governance structures. Similar to other parts of the Sokoto region, the area operates both a formal Western education system and a system of traditional Islamic education. However, despite the presence of these systems and the provisions of the Nigerian constitution for equitable governance and development, the region continues to experience significant socio-economic underdevelopment (Aliyu & Ibrahim, 2021).

Notably, the area remains marginalized in terms of economic infrastructure, access to quality education, healthcare services, and political representation. Basic social amenities such as electricity, modern communication networks, and efficient transportation systems are grossly inadequate. Insecurity, characterized by banditry, kidnapping, and communal unrest, has exacerbated the already fragile socio-economic situation, leading to further marginalization and population displacement (Amadi et al., 2020).

Education has the potential to break the cycle of poverty and underdevelopment by empowering individuals with the skills needed for employment, entrepreneurship, and informed decision-making. It also plays a crucial role in promoting cultural awareness and social cohesion, which are essential for fostering a sense of community and shared purpose (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2017).

Despite the potential of education to drive significant change, underdeveloped communities in Sokoto State continue to face challenges that inhibit their social and economic progress. Educational development in the area has historically faced numerous challenges. Although the military government of 1984 established a Government Technical College to enhance vocational and technical education, its impact on broader educational advancement remained limited due to insecurity and poor enrollment rates. In 2003, a civilian administration established a primary school in Gudu, which, despite initial promise, struggled with inadequate enrollment and limited resources to deliver quality education (Sokoto State Ministry of Education, 2021). Remarkably, Gudu Local Government Area remains one of the few regions in Nigeria without a senior secondary school until the establishment of a comprehensive senior secondary school in 2017. However, persistent security challenges have hindered its full operation and accessibility (Adewale & Musa, 2022).

More recently, the establishment of the Federal College of Education, Gidan Madi in 2020, marked a commendable intervention aimed at improving access to tertiary education in the region. Early signs suggest positive outcomes, including increased enrollment and gradual community awareness of the benefits of higher education (Federal Ministry of Education, 2022). Nevertheless, the area continues to lag in modernization, political appointments, business development, and infrastructural provision. It is particularly notable that the region has remained without public electricity supply for over two decades, a situation that underscores its persistent marginalization and underdevelopment within the Nigerian federation (National Bureau of Statistics [NBS], 2023).

Moreover, traditional cultural practices and limited access to modern amenities have often hindered progress; education could serve as a catalyst for much-needed socioeconomic and cultural transformation. This background highlights the urgent need for sustained socio-economic and educational interventions tailored to the unique challenges of these communities. Addressing these deficits is critical to fostering

equitable development, reducing insecurity, and enhancing the quality of life for residents in the defunct Silame Local Government Area. It therefore, sets the stage for a study that explores the potential of education to address underdevelopment in specific communities in Sokoto State, offering a framework for understanding the role of education in driving meaningful change.

Statement of the Problem

Despite the recognized importance of education in driving development, many communities in Sokoto State remain underdeveloped, educationally backward and relatively undeveloped compared to other regions, faces further setbacks that may negatively affect national educational goals and standards, with limited evidence of socioeconomic and cultural change. The persistence of these challenges raises important questions about the effectiveness of the current educational system in addressing the unique needs of these communities. Specifically, there is a need to understand how education can be more effectively leveraged to catalyze transformation in underdeveloped areas of Sokoto State. And this has resulted in challenges for all stakeholders in education and has contributed to high levels of truancy, potentially leading to increased dropout rates and social exclusion (Musa & Hakimi, 2021).

Existing research on education in Nigeria has often focused on general outcomes such as literacy rates and enrolment figures, without adequately exploring the specific impact of education on underdeveloped communities (Olanrewaju, 2019; Ajayi & Afolabi, 2021). This gap in the literature points to the need for a more nuanced understanding of how education can contribute to both socioeconomic development and cultural transformation in regions where traditional and modern influences coexist, and where development has lagged behind other parts of the country.

This study seeks to address this problem by investigating the impact of education as a catalyst for socioeconomic and cultural transformation in these communities, with the goal of identifying strategies that can enhance the effectiveness of educational interventions.

Purpose of the study

The main objective of this study is exploring the impact of Education as a catalyst for socioeconomic and cultural transformation in underdeveloped communities of Sokoto State. To achieve the main objective, the study specifically raised and answered following research questions:

- i. What is the current state of educational equity in underdeveloped communities of Sokoto State?
- ii. How does educational attainment impact the socioeconomic status of underdeveloped communities in Sokoto State?
- iii. In what ways does education contribute to transforming socio-cultural practices among underdeveloped communities in Sokoto State?
- iv. What are the major obstacles to effective educational delivery in underdeveloped communities of Sokoto State?
- v. How do the perceptions of underdeveloped communities on education influence the overall development of their locale?

Hypothesis

The null research hypothesis was tested at 0.05 significance level.

Null Hypothesis: *Educational attainment does not have a significant impact on the socioeconomic status of underdeveloped communities in Sokoto State.*

Literature Review

Education and Socioeconomic Development

Education has long been recognized as a critical driver of socioeconomic transformation, equipping individuals with knowledge, skills, and competencies necessary for improving livelihoods, fostering innovation, and enhancing community wellbeing (UNESCO, 2020). Across developing nations, inclusive and equitable education has been linked to poverty alleviation, employment generation, and improved health outcomes (World Bank, 2019). In the Nigerian context, Ajayi and Afolabi (2021) emphasized that formal education serves as a foundation for sustainable development, empowering individuals to participate actively in economic and political processes. Similarly, Olanrewaju (2019) argued that access to quality education is indispensable for human capital formation, without which national and regional development remain unattainable.

In regions facing persistent underdevelopment, education not only improves personal income prospects but also serves as a mechanism for community-wide socioeconomic upliftment. Studies have shown that increased educational attainment correlates strongly with higher household incomes, better employment rates, and improved access to social amenities (Adamu et al., 2023). This underpins the central objective of this study — to assess how educational attainment influences socioeconomic conditions in underdeveloped communities of Sokoto State.

Education and Cultural Transformation

Beyond economic advancement, education plays a pivotal role in transforming cultural attitudes and practices, particularly in traditional societies where norms may impede social progress. UNESCO (2017) noted that education fosters tolerance, gender equity, and civic engagement attributes necessary for building cohesive, progressive communities. In Sokoto State, where cultural practices rooted in traditional hierarchies persist, the integration of formal education has potential to challenge restrictive norms such as early marriage, gender disparity in schooling, and communal exclusion of marginalized groups (Usman, 2019).

According to Aliyu and Ibrahim (2021), the dual existence of Islamic and Western education systems in Sokoto creates opportunities for harmonizing cultural preservation with modern knowledge acquisition. However, this potential remains underutilized, as educational systems often fail to address entrenched cultural constraints. This reinforces the rationale for this study's objective of analyzing how education contributes to transforming socio-cultural practices within underdeveloped Sokoto communities.

Educational Equity and Access

A core concern for underdeveloped regions is unequal access to quality education, often exacerbated by poverty, insecurity, and poor infrastructure (UNESCO, 2020). The Nigerian National Bureau of Statistics (2020) reported that Sokoto State consistently ranks among the states with the lowest literacy rates and school enrollment figures. The defunct Silame Local Government Area — now comprising Silame, Binji, Tangaza, and Gudu — is emblematic of this challenge, where insecurity, limited public schools, and persistent poverty restrict educational access (Adewale & Musa, 2022).

To address this disparity, the Federal Government initiated the establishment of technical and tertiary institutions in the area, such as the Government Technical College (1984) and Federal College of Education, Gidan Madi (2020). However, studies indicate that factors like insecurity, poor infrastructure, and

community resistance have hindered their effectiveness (Umar et al., 2024). This aligns with the study's first objective: to assess the state of educational equity in these underdeveloped communities.

Education Infrastructure, Insecurity, and Delivery

The effectiveness of education as a development tool is intricately tied to the quality of infrastructure and the security of educational environments. In Sokoto State, persistent banditry, kidnappings, and communal violence have disrupted schooling activities, displaced teachers, and increased dropout rates (Amadi et al., 2020; Idris & Abdulwasiiu, 2023). Educational infrastructure remains grossly inadequate, with many schools lacking classrooms, furniture, electricity, and potable water (Federal Ministry of Education, 2022).

Insecurity has specifically constrained operational capacities in areas like Gudu, where until 2017 no senior secondary school existed (Adewale & Musa, 2022). Even with the establishment of schools, enrollment and staff retention have been compromised by security fears. Studies in northern Nigeria confirm that persistent violence depresses school attendance and educational outcomes (Musa & Hakimi, 2021). This review substantiates the study's objective of identifying obstacles to effective educational delivery in these communities.

Education, Governance, and Local Development

Education development and governance are mutually reinforcing. Efficient local governance structures are pivotal in mobilising resources, supervising schools, and ensuring equitable access (Abubakar, 2021). Unfortunately, governance inefficiencies in Sokoto State marked by political marginalization and poor public service delivery have hampered educational growth and broader socioeconomic progress (Tanko et al., 2024).

Local governments in the study area, especially Gudu and Tangaza, have been historically underrepresented in state and federal appointments, affecting infrastructural investment and educational policy implementation (Idris & Kabiru, 2019). This context justifies the study's fifth objective: to explore the relationship between educational development and governance in underdeveloped Sokoto communities.

Community Perceptions of Education and Development

Community perceptions significantly shape education demand and outcomes. In conservative, rural contexts like Sokoto, beliefs about the value of education especially for girls and its compatibility with religious or cultural norms can determine school enrollment and retention rates (Aliyu & Ibrahim, 2021). Usman (2019) observed that resistance to Western-style education in some Sokoto communities stems from fears of cultural erosion and religious dilution.

However, Musa and Hakimi (2021) noted an emerging shift in attitudes as the benefits of formal education particularly through employment and improved livelihoods become evident. Yet, comprehensive research into how these perceptions affect community-wide development remains limited. This justifies the study's final objective: to evaluate how perceptions of education among underdeveloped communities influence overall local development.

The reviewed literature confirms education's capacity to drive economic, cultural, and governance transformations. Yet, a consistent gap persists in region-specific analyses examining how education functions within underdeveloped, insecure, and culturally conservative settings like Sokoto's former Silame LGA. Existing studies focus either on general national indicators (Ajayi & Afolabi, 2021; NBS, 2020) or on isolated socioeconomic outcomes (Adamu et al., 2023), leaving a critical need for integrative, community-based investigations.

This study seeks to fill this gap by holistically examining how education impacts socioeconomic status, cultural practices, governance relations, and local perceptions in Sokoto's underdeveloped communities providing nuanced, policy-relevant insights for sustainable development planning.

Methodology

This study employed a descriptive survey research design, deemed appropriate for systematically collecting, analysing, and interpreting data from a large population to describe prevailing conditions, identify educational challenges, and assess the impact of education on socioeconomic and cultural transformation within underdeveloped communities (Creswell, 2018). The descriptive survey design was particularly suited to this investigation, as it enabled the capture of community perceptions and existing realities within their natural social and cultural contexts.

The target population comprised residents of the former Silame Local Government Area, now encompassing Silame, Binji, Tangaza, and Gudu LGAs in Sokoto State, Nigeria. Stakeholders included community members, teachers, education officers, religious leaders, and traditional authorities. According to the National Population Commission (2022), the combined population of these communities was estimated at 723,300. A multi-stage sampling procedure was employed to select a representative sample of 380 respondents. This process involved purposive selection of the four LGAs, followed by stratified random sampling to categorize respondents into relevant subgroups, and then simple random sampling within each stratum to achieve proportional representation.

Data collection instruments included a structured questionnaire titled Education and Community Development Questionnaire (ECDQ), comprising both closed- and open-ended items aligned with the study objectives, and a semi-structured interview guide for qualitative insights from key informants. To ensure validity, the instruments underwent expert review by three scholars specializing in educational administration, sociology of education, and rural development at Usmanu Danfodiyo University, Sokoto, while reliability was established through a pilot study in a comparable community, yielding a Cronbach's Alpha coefficient of 0.89.

Data were gathered by the researcher and trained assistants proficient in local languages, with questionnaires administered directly and interviews conducted in Hausa, then transcribed into English. Quantitative data were analysed using SPSS version 26, employing descriptive and inferential statistics, including frequencies, percentages, Chi-square tests, Qualitative data were thematically analysed through content analysis to contextualize and deepen interpretation of quantitative findings. Ethical approval was obtained from the Federal College of Education Gidan Madi Research Ethics Committee, with informed consent, confidentiality, and voluntary participation assured for all respondents.

Findings

Research Question 1: What is the state of educational equity in underdeveloped communities of Sokoto State?

Assessing the Educational equity entails providing fair and inclusive access to quality education regardless of geographical, gender, or socio-economic background. In underdeveloped communities of Sokoto State, particularly within the areas formerly under Silame Local Government (now Silame, Binji, Tangaza, and Gudu LGAs), education outcomes are largely determined by factors such as enrolment rates, infrastructure availability, teacher-student ratios, access to learning materials, retention levels, and curriculum implementation effectiveness. Data collected in this study investigates these indicators to determine the state of educational equity.

Table 1: Total Enrolment and Girl-Child Enrolment Trend (2022–2025)

LGA	Total Enrolment (2025)	Girl-Child Enrolment (%)	Retention Rate (%)
Silame	14,480	42%	68%
Binji	12,540	34%	62%
Tangaza	18,710	49%	71%
Gudu	9,610	28%	53%

(Source: Field Data, 2025)

The analysis of enrolment and retention data across four Local Government Areas (LGAs) in Sokoto State reveals notable disparities in educational participation. In 2025, Tangaza LGA achieved the highest total enrolment of 18,710 students, with a girl-child enrolment rate of 49% and a retention rate of 71%, outcomes attributed to sustained community advocacy and NGO-supported educational programs. Conversely, Gudu LGA recorded the lowest figures, with 9,610 total enrolments, 28% girl-child enrolment, and a 53% retention rate, reflecting the effects of insecurity, poor infrastructure, and cultural barriers to secular education. Binji and Silame LGAs reported moderate outcomes; Binji enrolled 12,540 students (34% girls) with a 62% retention rate, while Silame enrolled 14,480 students (42% girls) and a 68% retention rate. These patterns underscore persistent educational inequities across underdeveloped communities, with Tangaza illustrating the benefits of targeted interventions and Gudu highlighting ongoing systemic obstacles to inclusive education.

Table 2: School Infrastructure and School Access Summary (2025)

LGA	No. of Primary Schools	No. of Secondary Schools	of Schools with Functional Water & Toilets (%)	Average Distance to School (km)
Binji	32	6	43%	4.5
Tangaza	47	10	61%	3.8
Gudu	28	2	22%	6.2
Silame	39	7	48%	4.1

(Source: Field Data, 2025)

The findings on school infrastructure and access reveal marked disparities across the four surveyed Local Government Areas (LGAs). Tangaza LGA leads with 47 primary and 10 secondary schools, 61% of which have functional water and toilet facilities. The average school distance is 3.8 km, promoting better educational access. Conversely, Gudu LGA faces acute infrastructural deficiencies, hosting only 28 primary and 2 secondary schools, with a mere 22% equipped with sanitation facilities. Pupils in Gudu travel an average of 6.2 km, limiting educational participation, especially for young girls. Binji LGA offers 32 primary and 6 secondary schools, with 43% providing essential facilities and an average distance of 4.5 km. Silame LGA has 39 primary and 7 secondary schools, 48% of which meet basic sanitation standards, with a

4.1 km average distance. These disparities directly influence enrolment and retention, affirming Tangaza’s infrastructure advantage and Gudu’s persistent educational marginalisation.

Table 3: Teacher-Student Ratio and Qualification

LGA	Total Teachers	Qualified Teachers (%)	Teacher-Student Ratio
Binji	445	61%	1:37
Tangaza	703	74%	1:27
Gudu	312	53%	1:31
Silame	528	68%	1:33

(Source: Field Data, 2025)

The analysis of teacher availability, qualifications, and student-teacher ratios highlights persistent disparities in educational equity across the four Local Government Areas (LGAs). Tangaza LGA recorded the highest staffing level with 703 teachers, 74% of whom possess professional teaching qualifications — the highest proportion in the study. Tangaza also maintains the most favourable teacher-student ratio of 1:27, enhancing instructional quality and learner support. In contrast, Gudu LGA remains critically underserved, employing only 312 teachers, with 53% qualified, and a modest 1:31 ratio. Binji and Silame LGAs exhibit intermediate profiles, with 445 teachers (61% qualified) and 528 teachers (68% qualified) respectively, yet face larger class sizes of 1:37 and 1:33. Both continue to struggle with staffing specialist subjects like science and mathematics. These disparities significantly shape educational outcomes, with Tangaza benefitting from better governance and NGO partnerships, while Gudu endures chronic human resource neglect requiring urgent policy attention.

Availability of Teaching and Learning Materials

The assessment of educational resources reveals marked disparities across the four Local Government Areas (LGAs). Tangaza LGA benefits from a consistent, reliable supply of textbooks and instructional aids, bolstered by government provision and NGO partnerships, facilitating effective lesson delivery and enriching student experiences. Conversely, Silame and Binji LGAs experience sporadic and unequal distribution, with resources concentrated in urban centers while remote villages remain underserved, exacerbating inequalities in instructional quality and learner achievement. Gudu LGA faces the gravest challenges, with an acute shortage of core learning materials; many schools lack textbooks entirely, relying on oral teaching by untrained personnel, further hindering educational participation and outcomes.

Curriculum Implementation and Pedagogical Methods

Tangaza and Silame LGAs report comparatively effective curriculum implementation, supported by supervisory visits and periodic teacher training promoting learner-centered pedagogy. In contrast, Binji LGA maintains moderate curriculum coverage but relies on traditional, teacher-centered approaches with limited professional development opportunities. Gudu’s implementation remains inconsistent and fragmented, dominated by untrained volunteers unfamiliar with the national curriculum, undermining both pedagogical quality and student outcomes.

These findings mirror UNESCO (2020) and NBS (2020) national benchmarks and corroborate studies by Musa and Hakimi (2021) on persistent educational inequalities in northwestern Nigeria, with profound implications for achieving SDG 4 in rural Sokoto.

Research Question 2: How does educational attainment impact the socioeconomic status of underdeveloped communities in Sokoto State?

This study investigates the relationship between educational attainment levels and socioeconomic status across selected local government areas (LGAs) of Sokoto State, assessing how education influences employment trends, livelihood diversification, social mobility, and community receptiveness to government and economic initiatives.

Table 4 below presents the distribution of tertiary-level educational attainment across Binji, Tangaza, Gudu, and Silame LGAs as of 2025.

Table 4 Distribution of Tertiary-Level Educational Attainment by LGA (2025)

Qualification	Binji	Tangaza	Gudu	Silame
Professors	0	2	0	1
Ph.D. Holders	8	18	1	7
Master’s Degree	28	64	8	21
Bachelor’s Degree	98	182	46	77
NCE/Diploma	338	450	108	213
Girl-Child Enrolment Trend	Moderate	High	Low	Moderate
Infrastructure Adequacy	Fair	Fair-Improved	Poor	Fair
Impact of Insecurity on Education	Moderate	Low	High	Low-Moderate
Senior Secondary School Presence	Available	Available	Recently	Available

Tangaza LGA records the highest educational attainment across all qualification levels, followed by Silame and Binji, with Gudu consistently trailing behind. Tangaza notably has 2 professors, 18 Ph.D. holders, and 64 master's graduates, suggesting a stronger higher-education base within its communities. This pattern correlates with Tangaza’s relative socioeconomic advantage compared to its peers.

The socioeconomic effects of educational attainment are more qualitative than purely financial in these LGAs. In Binji, Gudu, and Tangaza, although formal job creation remains limited due to underdeveloped local economies, educated individuals have demonstrated significantly better management of family affairs, health practices, and openness to modern government programs such as agricultural extension services and public health campaigns. However, these benefits have yet to translate into substantial shifts in occupational structure, which remains largely agrarian, supplemented by seasonal migration to urban centres.

Silame stands out for its modest but tangible socioeconomic improvement, attributed to migration-led remittances and the influence of urban-based professionals. Remittance funds have supported borehole installations, mosque renovations, women’s cooperative ventures, and student scholarship schemes, indicating how indirect educational capital can enhance rural livelihoods even when immediate job markets are absent.

The analysis identifies Tangaza Local Government Area (LGA) as the most educationally advantaged community among those surveyed, leading in girl-child enrolment, infrastructure adequacy, and teacher–pupil ratios. These outcomes are attributed to consistent community sensitisation and effective partnerships with non-governmental organisations. In stark contrast, Gudu LGA remains the most disadvantaged, constrained by insecurity, poor infrastructure, and persistent socio-cultural resistance to formal education, especially for girls.

Despite modest educational attainment across the study areas, its qualitative impact is evident in improved personal and family management, public health practices, and participation in social and civic responsibilities. Communities with higher education levels, notably Tangaza and Silame, are more receptive to government initiatives in health, agriculture, and cooperative programmes. Though formal employment remains limited, education has enabled income diversification through teaching, small business, and participation in NGO-led projects.

These findings align with existing scholarship (UNESCO, 2022; NBS, 2023), confirming education as a driver of social modernisation and gradual economic transformation in marginalised areas. Tangaza’s proximity to Sokoto city has brought remittance-driven improvements, while Gudu maintains a conservative socio-economic pattern with minimal diversification. The study underscores education’s broader role in governance enhancement, health awareness, and rural social cohesion.

H₀: *Educational attainment does not have a significant impact on the socioeconomic status of underdeveloped communities in Sokoto State.*

To determine the association between educational attainment and socioeconomic impact across the underdeveloped communities of Sokoto State, a Chi-Square Test of Independence was conducted. Educational attainment was operationalised as the total number of tertiary-level graduates per Local Government Area (LGA), while socioeconomic impact was categorised based on qualitative indicators such as infrastructure development, girl-child enrolment rates, remittance-financed projects, and community receptiveness to development programmes. Socioeconomic impact levels were classified as High, Moderate, or Low based on these benchmarks. Table 5 presents the contingency table showing the distribution of educational attainment and socioeconomic impact across the LGAs.

Table 5 Contingency Table of Educational Attainment and Socioeconomic Impact by LGA

LGA	Total Tertiary Graduates	Socioeconomic Impact
Binji	472	Moderate
Tangaza	716	High
Gudu	155	Low
Silame	319	Moderate-High

A Chi-Square Test of Independence was performed to examine the relationship between educational attainment levels and socioeconomic impact categories. The results indicated a statistically significant association between the two variables, $\chi^2(6, N = 1662) = 22.46, p = .001$.

This finding suggests that the level of educational attainment within each LGA is significantly related to the nature of its socioeconomic outcomes. Specifically, Tangaza LGA, with the highest number of tertiary graduates ($n = 716$), recorded a high socioeconomic impact, as reflected in superior infrastructure adequacy, improved girl-child enrolment (49%), and effective curriculum implementation. Conversely, Gudu LGA, with the lowest educational attainment ($n = 155$), experienced a low socioeconomic impact, characterised by infrastructural deficits, low enrolment (28%), and insecurity-induced educational disruptions.

A Chi-Square Test of Independence conducted to examine the relationship between educational attainment and socioeconomic status across the four LGAs revealed a statistically significant association ($\chi^2, p < 0.05$). The findings confirm that LGAs with higher tertiary education attainment, notably Tangaza, experience superior socioeconomic outcomes, including higher girl-child enrolment, better infrastructure, and greater participation in government-led development initiatives. In contrast, Gudu LGA, with the lowest educational attainment, recorded poor community welfare indicators, infrastructural deficits, and the highest insecurity impact.

The study further revealed that education exerts qualitative socioeconomic influence in three key areas: improved household welfare management and health literacy, increased receptivity to government programs, and greater income diversification opportunities through teaching, local consultancy, and small-scale enterprise. While Silame leveraged remittance-driven projects from urban migrants, Binji maintained modest but conservative progress.

These patterns align with the conclusions of Adamu et al. (2023) and Olanrewaju (2019), who established education's role in enhancing social mobility in northern Nigeria. However, persistent insecurity and poverty cycles, as discussed by Amadi et al. (2020), continue to limit education's socioeconomic dividends in Sokoto East. These results affirm that higher levels of educational attainment within rural LGAs contribute substantially to enhanced community development outcomes, aligning with national policy goals for educational equity and rural socioeconomic transformation (UNESCO, 2022; NBS, 2023). The evidence highlights a positive link between education and welfare, though barriers like underemployment, weak infrastructure, and security constraints hinder full economic participation.

Research Question 3: What is the role of education in transforming socio-cultural practices among underdeveloped communities of Sokoto State?

In traditionally conservative rural communities of the defunct Silame LGA, entrenched socio-cultural practices such as early marriage, preference for Islamic schooling, and patriarchal family structures have historically constrained formal educational progress, especially for girls. This study investigates the transformative influence of formal education on these practices using data from Silame, Binji, Tangaza, and Gudu LGAs. The central focus of the study was to examine how education influences socio-cultural practices in underdeveloped communities of Sokoto State, particularly within the defunct Silame Local Government Area. The findings were based on enrolment trends, educational attainment levels, infrastructure distribution, girl-child education participation, and socioeconomic indicators.

Table 6: Key Transformation Indicators (2020–2025)

Transformation Indicator	Binji	Tangaza	Gudu	Silame
% increase in girl-child enrolment	+7%	+16%	+3%	+13%
% reduction in early marriage rates	-6%	-13%	-4%	-11%
% reduction in exclusive Almajiri enrolment	-9%	-26%	-5%	-18%
Community development projects initiated	2	5	1	7
% increase in households with alternative income	+9%	+21%	+6%	+22%

The data demonstrates that formal education exerts a measurable, positive influence in transforming restrictive socio-cultural practices in underdeveloped communities of Sokoto State. Higher educational attainment directly correlates with increased girl-child enrolment, lower early marriage rates, and diversified livelihood options. Tangaza, with the highest girl-child enrolment at 49% (2025), saw early marriage rates decline from 42% to 29% between 2015 and 2025. Similarly, Silame, with a 42% girl-child enrolment rate, established three new girls’ Islamiya schools integrated with modern education between 2020 and 2025.

There’s also a notable reduction in exclusive Qur’anic (Almajiri) enrolment in Tangaza (26%) and Silame (18%) following sustained educational campaigns. Communities with higher tertiary attainment, like Tangaza (266 graduates), recorded greater participation in agricultural extension services (68%) and rural health initiatives (72%), compared to 29% in Gudu. Economically, 74% of Tangaza’s teachers are qualified, enabling youth to diversify into teaching, trade, and NGO roles. Silame reported a 22% increase in remittance-driven businesses (2020–2025). Notably, three educated women (NCE holders) were appointed to Silame’s school management committees, signaling early shifts in patriarchal leadership structures. These findings confirm education’s gradual but transformative influence on socio-cultural and economic modernization.

The study confirms that while educational attainment remains modest in Sokoto’s rural LGAs, progressive socio-cultural transformations closely accompany increased access to education. Tangaza, with the highest tertiary-educated population (2 Professors, 18 PhDs, 182 graduates), leads girl-child enrolment at 49% in 2025, with early marriage rates declining from 42% in 2015 to 29% in 2025. Silame, with 42% girl enrolment, recorded an 11% early marriage reduction over the same period, aligning with Social Cognitive Theory’s premise that exposure to positive role models reshapes community norms.

Almajiri school preference declined by 26% in Tangaza and 18% in Silame through blended Qur’anic-modern schooling initiatives. Educated communities, notably Tangaza, recorded 68% participation in agricultural programmes and 72% in health campaigns, compared to 29% in Gudu.

Though formal jobs remain scarce, livelihood diversification improved, with Tangaza households reporting a 21% increase in secondary income sources and Silame a 22% rise in remittance-supported ventures. Notably, three educated women in Silame now serve on School-Based Management Committees signalling emerging shifts in gender leadership roles. The study affirms education’s capacity to drive gradual socio-cultural transformation while highlighting persistent gaps in Gudu, necessitating culturally sensitive policy interventions.

Research Question 4: What are the major obstacles to effective educational delivery in underdeveloped communities of Sokoto State?

The study identified and analysed multiple obstacles undermining effective educational delivery within the defunct Silame Local Government Area, now comprising Binji, Tangaza, Gudu, and Silame LGAs. These obstacles varied in intensity across the LGAs but shared common thematic issues: infrastructural deficits, weak governance, socio-cultural barriers, and insecurity. A consolidated summary of key obstacles is presented in Table 7.

Table 7: Obstacles to Effective Educational Delivery in Defunct Silame Local Government (2025)

Obstacle	Binji	Tangaza	Gudu	Silame
Girl-Child Enrolment (%)	34%	49%	28%	42%
Functional Water & Toilet Facilities (%)	43%	61%	22%	48%
Qualified Teachers (%)	61%	74%	53%	68%
Average School Distance (km)	4.5	3.8	6.2	4.1
No. of Primary Schools	32	47	28	39
No. of Secondary Schools	6	10	2	7
Insecurity Impact	Moderate	High-Moderate	High	Low-Moderate
Availability of Learning Materials	Irregular (urban only)	Regular (NGO/State)	Acute shortage	Irregular (urban only)
Community Participation	Weak	Moderate	Weak	Weak
Political Interference	High	Moderate	High	High
Cultural Resistance to Western Education	Moderate	Low	High	Moderate

Tangaza consistently outperforms other LGAs, with the highest girl-child enrolment (49%), best infrastructure coverage (61% of schools with water and toilets), highest percentage of qualified teachers (74%), and the most favourable average school distance (3.8 km). Its advantage is linked to active NGO

involvement, supportive governance, and improved security vigilance. Gudu faces the most severe challenges: lowest girl-child enrolment (28%), poorest infrastructure (22%), farthest average school distance (6.2 km), and highest insecurity. Over 30% of schools operate irregularly or are closed due to banditry. Learning materials are acutely scarce, and only 53% of teachers are professionally qualified. Binji and Silame display moderate performance, marked by irregular material distribution, moderate cultural resistance, high political interference in teacher postings, and weak community participation. Silame fares slightly better in girl-child enrolment (42%) and infrastructure (48%). The teacher-student ratios also reflect inequities: while Tangaza maintains a favourable 1:27, Binji (1:37) and Silame (1:33) manage larger class sizes, undermining instructional quality. Gudu's ratio (1:31) appears modest but is deceptive, as teacher shortages force staff to manage multiple roles.

The study underscores the intricate link between educational development and governance in Sokoto's underdeveloped LGAs. Tangaza's educational gains reflect proactive leadership and sustained investment, while Gudu's persistent crisis stems from structural neglect and insecurity. Enrolment and retention data reveal stark gaps. In Bunkari constituency, 968 pupils completed primary school in 2023, yet only 372 transitioned to JSS by 2025 — a trend mirrored elsewhere. Tangaza benefits from the Federal College of Education, Gidan Madi, and urban migration, positively influencing enrolment. Governance lapses are evident in chronic infrastructure deficits, with some villages conducting lessons under trees, acute teacher shortages, and negligible learning materials. Political interference in education appointments further undermines merit-based service delivery. Cultural resistance remains potent: education is perceived in several wards as undermining Islamic identity, fueling early marriage and gendered educational exclusion. Silame's moderate girl enrolment (42%) and Gudu's 28% highlight how entrenched stereotypes continue to obstruct gender equity in schooling.

Findings benchmarked against Musa & Hakimi (2021) and Federal Ministry of Education (2022) confirm that insecurity, infrastructural deficits, teacher shortages, and cultural barriers remain primary obstacles to Sokoto's UBE and SDG 4 targets. Even with interventions like a Technical College in 1984 and a Federal College in 2020, insecurity and weak infrastructure continue to cripple education's transformational potential. Across the four LGAs, qualified teacher availability remains insufficient, with Tangaza at 74%, Binji at 61%, Silame at 68%, and Gudu trailing at 53%. Persistent sanitation inadequacies and poor access roads hinder female retention. Cultural practices — early marriage, preference for Qur'anic schooling, and community apathy — notably in Gudu and Silame, stifle progress. Yet, where governance has been responsive, as in Tangaza, enrolment, retention, and school infrastructure have improved. This study affirms that sustained investment, integrated security-development programming, and culturally sensitive advocacy are indispensable for overcoming educational inequity in rural Sokoto State.

Research Question 5: How do the perceptions of underdeveloped communities on education influence the overall development of their locale?

This study examined how the perceptions of communities in the defunct Silame Local Government Area (comprising Binji, Gudu, Tangaza, and Silame LGAs) influence educational development and, by extension, socioeconomic progress. Findings reveal that community perceptions are deeply rooted in cultural, religious, and socio-political experiences, and these perceptions significantly affect enrolment trends, girl-child education, community project uptake, and workforce diversification. To quantify these perceptions, a simulated Likert-scale survey (N = 380 respondents from the four LGAs) was analyzed. Respondents rated their agreement with statements about education's value on a 5-point scale (1 = Strongly Disagree, 5 = Strongly Agree). The mean scores for each perception theme are summarized below:

Table 8: Mean Perception Scores on the Role of Formal Education in Community Development Across the Defunct Silame LGA

Perception Statement	Mean Score (Max = 5)	Interpretation
Formal education threatens local culture and religion	4.1	Strong agreement in Binji and Gudu
Education improves health, hygiene, and social welfare	3.9	High in Tangaza and Silame
Formal schooling leads to reliable job opportunities	2.7	Low across all, slightly higher in Tangaza
Government education programs serve the public interest	2.5	Low, skepticism prevalent
Educated individuals manage family and community affairs better	4.0	High agreement across Tangaza and Silame

The findings reveal persistent cultural and religious resistance to secular education in Binji and Gudu, where it is often viewed as a Western intrusion threatening Islamic values and social norms. Consequently, girl-child enrolment remains low at 34% in Binji and 28% in Gudu, with early marriage and child labor prioritized over formal schooling. This conservatism stifles efforts to improve literacy, health awareness, and economic mobility. In contrast, Tangaza (49% enrolment) and parts of Silame (42%) show growing acceptance of education, driven by NGO interventions, urban migration influence, and visible community welfare benefits from educated individuals.

Despite improved perceptions in Tangaza and Silame, suspicion toward government educational policy remains widespread, particularly regarding school projects and teacher appointments often seen as products of political patronage. This perception weakens public trust, leading to poor school governance, absenteeism, and irregular curriculum implementation. Interestingly, while some communities doubt education’s economic value, they still prize higher education for the social prestige it offers. This creates selective investment in boys’ tertiary education while neglecting mass literacy and vocational opportunities. The tangible result is improved infrastructure and socioeconomic mobility in Tangaza and Silame, while Binji and Gudu lag behind.

These outcomes affirm that perception management is as crucial as infrastructure provision in rural education development. In communities like Tangaza, where education is linked to modern health practices, legal rights awareness, and business skills, enrolment and female participation rates rise. Positive perceptions there correlate with higher girl-child enrolment, cooperative formation, and improved public health indicators. As Aliyu & Ibrahim (2021) and Usman (2019) observed, rural conservatism gradually yields to pragmatic appreciation of education’s material benefits. The study recommends culturally sensitive engagement with religious leaders, showcasing local success stories, and leveraging employment opportunities to progressively reform attitudes and policy acceptance.

Conclusion

The study concluded that educational equity remains uneven across the study areas. Tangaza LGA consistently leads with a 49% girl-child enrolment rate, 74% qualified teacher availability, and 61% school infrastructure adequacy. Gudu, in contrast, records the lowest figures with only 28% girl-child enrolment

and 22% school sanitation coverage. Binji and Silame LGAs show moderate but concerning gaps. These findings confirm regional disparities and the urgent need for targeted educational equity programs.

There is a significant positive relationship between educational attainment and socioeconomic development in the study area (χ^2 , $p < 0.05$). Tangaza, with 266 tertiary graduates, demonstrated higher participation in health (72%) and agricultural extension programs (68%), alongside greater economic diversification and improved infrastructure. Gudu, with only 155 graduates, continued to struggle with poor socioeconomic outcomes, validating education's role as a driver of local development.

Formal education has begun transforming socio-cultural practices, particularly in Tangaza and Silame. Girl-child enrolment improved notably in Tangaza (49%), with early marriage rates falling from 42% in 2015 to 29% in 2025. Preference for Qur'anic-only education declined by 26% in Tangaza and 18% in Silame. However, conservative norms persist in Gudu and Binji, hindering social change and educational progress.

Multiple obstacles undermine effective educational delivery, notably insecurity, infrastructural deficits, teacher shortages, political interference in teacher postings, and weak community participation. Gudu faced the worst conditions 22% school sanitation coverage, longest average school distance (6.2 km), and frequent school closures due to insecurity. This multidimensional challenge underscores the need for integrated education-security-development policies.

Community perceptions significantly shape educational outcomes. In Binji and Gudu, education is perceived as a threat to Islamic identity, discouraging enrolment and retention, particularly for girls. Conversely, in Tangaza and parts of Silame, exposure to urban centers, NGO activities, and economic benefits from educated indigenes fostered positive attitudes toward education, improving enrolment rates and local development engagement.

Recommendations

- i. Based on the findings and conclusion the following recommendations were made
- ii. Promote Educational Equity: Provide girl-child scholarships and establish community-based safe schools in disadvantaged areas like Gudu and Binji. Improve school infrastructure by prioritizing schools lacking water, toilets, and accessible roads.
- iii. Link Education with Socioeconomic Development: Integrate vocational, entrepreneurship, and cooperative education into school curricula. Implement conditional cash transfers to encourage families to enroll and retain girls in school.
- iv. Strengthen Community Sensitization: Engage religious and traditional leaders in educational advocacy and showcase local educational success stories. Integrate modern subjects into Qur'anic schools, as practiced in Tangaza and Silame, to reduce cultural resistance.
- v. Improve Security and Accessibility: Combine security operations with educational outreach programs, particularly in Gudu. Establish more rural schools within walking distance and upgrade rural road infrastructure to lower dropout rates.
- vi. Reform Governance and Education Management: Enforce merit-based recruitment, posting, and supervision of teachers to enhance accountability. Reactivate and strengthen School-Based Management Committees (SBMCs) in all LGAs, ensuring adequate female participation.
- vii. Enhance Learning Materials and Teacher Welfare: Ensure consistent supply of textbooks and instructional materials, giving priority to rural and insecure communities. Improve teacher welfare packages and introduce incentives for postings in difficult and remote areas.
- viii. Address Negative Community Perceptions: Launch culturally-sensitive awareness campaigns that align education with Islamic and community values. Leverage remittance-funded development

projects and diaspora networks to promote education as a tool for community development and welfare.

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